

Heritage, Design and Access Statement | Hollybush Cellar Restoration

1.0 Introduction

Hollybush Lane Farm is a grade two listed farmhouse located on the outskirts of Penley, Wrexham. The listing document describes the property as follows:

A mid C18 farmhouse. In the mid C19 a parallel rear wing was added, later extended beyond the gable end of the original house, all of which is shown on the 1873 Ordnance Survey.

A Georgian 2½ storey 5-bay house of hand-moulded brick with concrete-tile roof on dentil eaves, and brick end stacks with moulded caps. The symmetrical front has a plat band between storeys. The central boarded door has a 2-pane overlight under a segmental head. Windows are segmental-headed small-pane cross windows in wooden frames. To the R of the entrance is a C19 small-pane iron-frame basement window. The L gable end is roughcast in the lower storey, evidence of a former lean-to, and has a replacement attic window on the R side. The R gable end has a replacement attic window to the L side.

The parallel rear wing is narrower and lower, also of brick with slate roof on dentil eaves. The rear elevation has a central gable, replacement casement windows in earlier openings, and double half-glazed doors in a former window opening. The R end is later, of a different colour brick, and projects beyond the gable end of the main range. Its entrance is on the N side, a segmental-headed boarded door to the L of which each storey has a replacement 2-light casement window, under a segmental head in the lower storey.

The main range is centrally planned with stair hall. The kitchen on the L has a chamfered spine beam with run-out stops, and fireplace with a large timber lintel. The parlour on the R side has a finely moulded cross beam. The full-height open-well stair has turned balusters and square newel. Beneath it are brick cellar steps. In the upper storey the rooms R and L have chamfered cross beams, and in the L-hand room box framing is exposed in part in the rear wall. The 2 roof trusses are late C19, with queen posts and collar beams, and iron bolts.

In the rear wing is a closed-string service stair.

The changes proposed in this application are very modest and are focused on restoring and securing the integrity of the cellar timbers following decades of mismanagement and neglect. The intent is to a) replace two perished timber lintels, b) remove and repair perished sections of flooring joists, and c) create a means of ventilation across the cellar in order to improve moisture control, including a minimally invasive repair of the existing cellar window.

02 Background & Conditions

Prior to our acquiring of the property, the timber structure in the cellar had been wrapped with a synthetic, non-breathable “Rockwool” insulation for approximately 20 years. This was an apparent attempt to insulate the above room from the cold of the cellar during winter. However, the synthetic insulation coupled with poor ventilation resulted in trapped moisture close to and around the existing timbers. Furthermore, the timbers themselves have been seated directly onto brick without any means of isolation. Both of these conditions have accelerated the damage to the timber lintels and joints resulting in the need to undertake repairs.



Figure 1 - Existing deteriorated condition of timber lintel



Figure 2 - Existing condition of deteriorated timber joists sitting directly onto brick



Figure 3 - Additional image of existing joist condition

It is our intent to undertake these repairs with minimal impact to the existing heritage quality of the building and rectify the fundamental causes that have accelerated the decay of the timbers over time.

The cellar is located in the North-West corner of the house, immediately below the Dining Room - Figure 4 - The walls of the cellar are constructed from hand-moulded brick. The floor is made from a flooring tile laid directly onto clay. Center to the North-wall is a small-paned iron framed window referred to in the listing. The suspended ceiling is constructed of full-span timber joists notched and laid into recesses in the brickwall. The cellar is accessed by a brick stair that descends to the south-east corner.



Figure 4 - Position of Cellar on Sketch Plan

03 Heritage Assessment and Schedule of Works

Whilst the proposed changes are relatively minor, they have been carefully considered to minimize impact to the heritage quality of the building, retain as much of the original material as possible, arrest deterioration of timbers, and secure the cellar and above room for the future. Our intent is to return the cellar to a functioning space, as a cool, dry area for storage of food, preserves, and wine.

Lintel Replacement

The two rotten timber lintels in the North and West walls - as shown in blue on Figure 5 - will be replaced with new concrete Spanlite lintels of the same dimension as the existing timbers. The wall above the lintels will be secured using two acrow props with strongboys using timber boards to protect propping surfaces, the existing timber material will be removed and the concrete lintel will be inserted into the cavity. The lintel will be packed to ensure a tight fit prior to the props being removed.

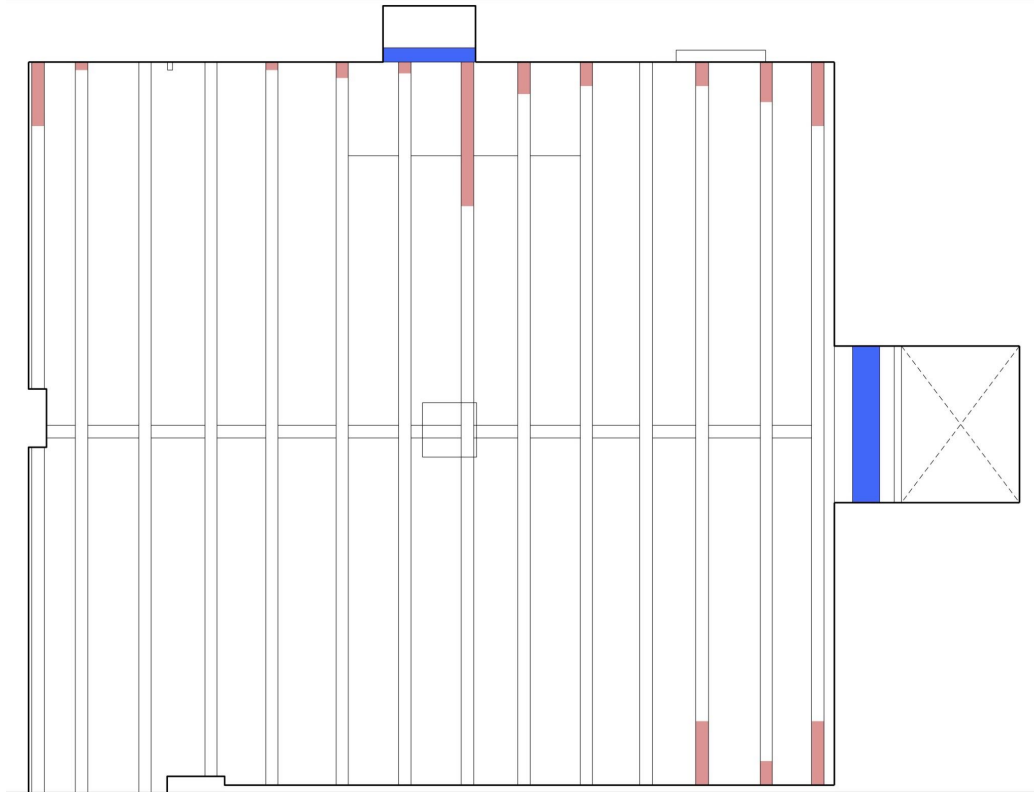


Figure 5 - Position of deteriorated lintels (blue) and joists (red)

Joists repair

Small sections of the joist need to be replaced - as shown in red on Figure 5. Having reviewed with our builder and architect, replacing the full length of the joist is not a viable approach owing to the nature of the space and the requirement to position full span timbers into the wall. Additionally, the basement walls are sub-ground level and will always be exposed to varying degrees of damp. We would like to take this opportunity to isolate the timber from the brickwork and avoid further damp issues in the timber ends in the future.

The existing joists will be secured using an acrow prop at a point unaffected by damp utilizing timber boards to protect propping surfaces. The rotten sections of timber will be removed and new pieces of structural timber will be fitted alongside the existing joist, secured to the timber with through-bolts and to the wall using joist hangers - details shown in Figures 6 and 7 below. The proposed approach will remove all contact of wood on brick, thus ensuring the repair lasts much longer than the existing condition.

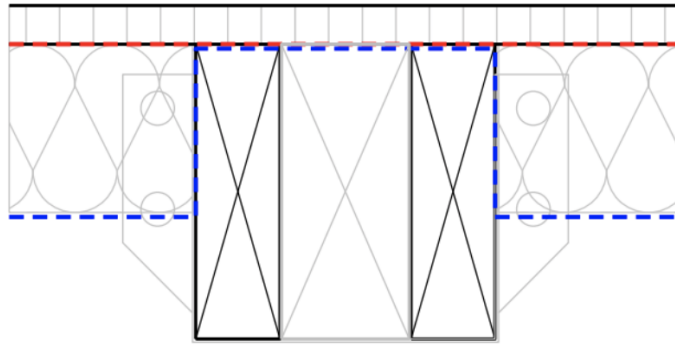


Figure 6 - Proposed joist hanger detail

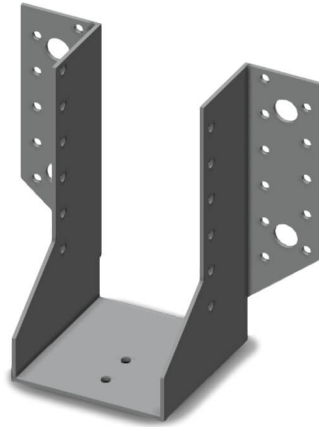


Figure 7 - Proposed joist hanger

Drying out joists & insulation

Access to the joints will require the existing floorboards in the room above to be carefully lifted per SPAB guidance on the lifting of heritage floor boards. Existing floor boards will be numbered and photographed to ensure they are returned to their original position. In some areas there is evidence of previous lathe and plaster between the flooring joists. Much of this has previously fallen due to moisture and any plaster that remains is saturated and holding moisture against both joists and floorboards. It is expected that upon lifting the floorboards the remaining moisture saturated lathe and plaster will fall away.

We plan to insulate per Historic England's guidance on Insulating Suspended Timber Floors, as referenced in Cadw's technical guidance for Improving Energy Efficiency in Historic Buildings in Wales. Once the joists are fully dried out, a suitable breather membrane layer will be draped over the joists, sheeps wool insulation will be installed between the joists, a vapour control membrane will be installed over the joists, and the floorboards carefully reinstated to their original positions per SPAB guidance. The combined effect of these changes will improve the thermal performance of the room above and reduce moisture retention around the heritage timbers.

Restoration of delaminated iron framed window

Inspection of the iron framed window in the cellar has shown the window surround to be in fair condition, however the hit-miss vent below the glass has delaminated and is resulting in significant moisture ingress during heavy rain. The existing condition can be seen in Figure 8.



Figure 8 - Existing condition of small-paned iron framed window in cellar

We intend to carefully remove by hand the delaminated and ineffective section of window - as shown marked in orange on Figure 8 - restore the frame by removing any loose oxidized areas, and, when dry and sound, repaint. The two broken panes of glass will be replaced with like-for-like single pane glass.

The delaminated hit-miss section will be replaced with a custom manufactured louvered panel as shown in Figure 9. The louvers will be angled outwards to ensure there is no water ingress while maintaining ventilation. The panel will be welded into place and treated in the same method as the frame.

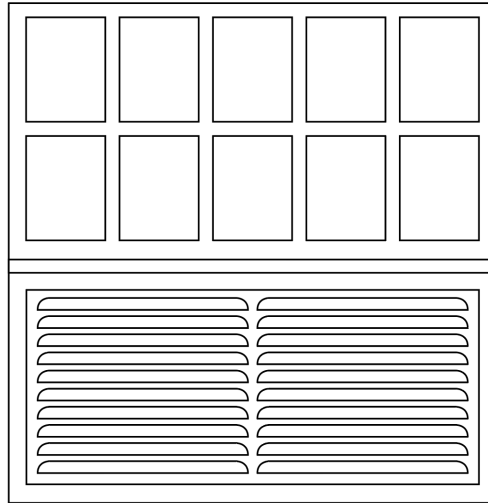


Figure 9 - Detail of proposed lowered panel

Improving ventilation

Finally, we believe that creating a cross-flow across the cellar is going to be critical to keeping the space dry.

We propose to create a small 120mm hole on West elevation - as shown in Figure 10 - and install ducting from the South west corner of the cellar, routing through the timber floor and terminating to the outside wall. The exterior will be finished with a venting cover detail as shown in Figure 11 to minimize visual impact. The ducting will be surface mounted through the room above the cellar and concealed using bespoke timber casework, replicating the existing casework detail in the room. Having received advice from heritage building consultants, a small, moisture-initiated forced air fan to assist with moisture control may be installed in the future - detail shown in Figure 11.



Figure 10 - Proposed position of exterior vent detail on West Elevation



Figure 11 - Proposed exterior vent cover detail

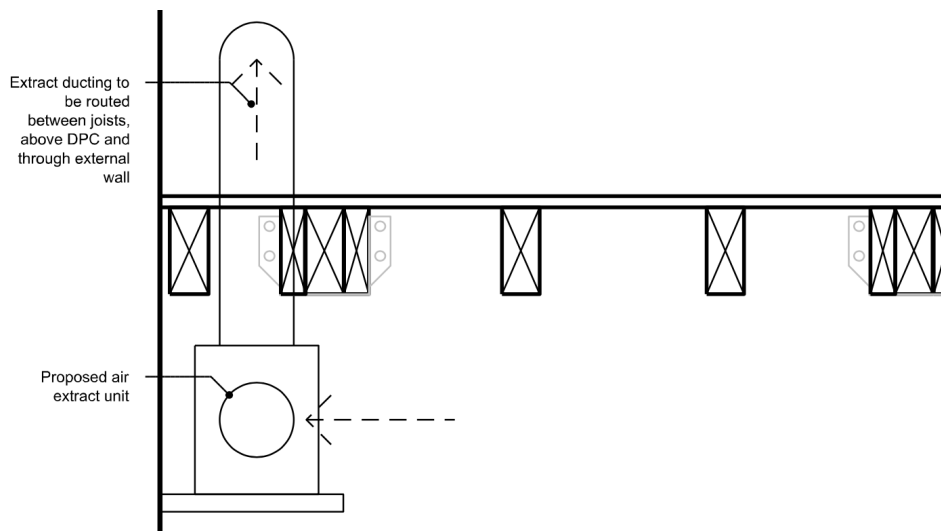


Figure 11 - Proposed air extract unit

4.0 Design and Access Statement

Use: There is no proposed change to the existing residential use.

Scale and Amount: There are no proposed changes to the scale and amount of the existing dwelling.

Layout: There are no proposed changes to layout of the existing dwelling.

Landscaping: There are no proposed changes to layout of the existing dwelling.

Appearance: The dwelling's external appearance will remain unchanged except for the addition of a small ~120mm air vent. The air vent will improve the performance of the cellar significantly, and the vent will not be visible from the primary elevation of the building.

Access: There are no changes proposed to the access of the dwelling.

5.0 Conclusion

The overall proposal would have minimal impact on the heritage qualities of the listed building. Any negative impact caused by the creation of a hole for the ventilation outlet and removal of rotten timbers is vastly offset by a dry, safe, thermally effective, and sustainable approach to management of the cellar and room above into the future.

Diagrams / images to include:

- *Spefication of joist hanger datasheet - Ben to send*
- *Ben to do final review*
- *Structural engineer - should we be using a masonry hanger*

NOTES FOLLOW

Original letter

1. Rotten Lintels

For the two failing lintels, we would like to follow your recommendation and replace these with new concrete lintels of the same size, packed with slate to ensure a tight fit into the existing holes.

2. Rotten Joists

For the small number of joist lengths that need to be replaced., Reviewing with our builder and architect, replacing the full length of the beam is not a viable approach owing to the fact that we would be able to get them into the space or correctly positioned. In addition, we know the basement walls will always have a varying degree of damp within them, we would like to take the opportunity to isolate the timber from the brickwork and ensure we don't have any damp issues in the future.

With the above in mind, we plan to prop the existing joists, remove the rotten piece, utilise a suitably sized joist hanger to secure the joist at the correct height, and sister in a new piece of wood on either side of the solid timber., and utilize a suitably sized joist hanger to secure the joist at the correct height. This should reduce the contact of joist on brick and thus the repair will last longer. We will then insulate between the joints in the cellar and use a thin timber board under the floorboards to improve the thermal performance of the room above it.

3. Drying Out Remaining Joists and Insulation

For the above to take place we will need to remove the lathe and plaster that is currently between the joists and fixed to the floorboards above, in the ceiling of the basement. In some places the plaster has already fallen off, due to the movement of the floor and joists. The plaster that remains is currently saturated and holding moisture against the joists.

Our intention is to remove the lathe and plaster, allow the joists to dry out fully and then install a suitable vapour control layer and insulation between the joists

4. Replacing Delaminated Iron Window

~~For the delaminated iron window frame, we would like to replace half of the window with brick and use a steel framed window in the other half. The brick work will be reclaimed brick found onsite at the farm and we will use the same lime mortar that was agreed for the repointing last year. Using a steel framed window with a vent in one pane for the upper half will allow us to maintain airflow into the cellar.~~

5. Ventilation System

Finally, Wwe believe that creating a cross-flow across the cellar is going to be critical to keeping the cellar cool and dry. Similar to the extractor in the kitchen, we will create a small ~6" hole in the wall above ground level and use ducting to create a cross flow from the window to the corner of the cellar. We may install a moisture initiated forced air fan to assist with moisture control.

6. Water Management

For water management, we are going to gently restore the existing drain and manage the incoming water from the corner of the room into the existing drain.

Heritage Impact Statements for homeowners or small changes

A heritage impact statement is a document which you need to submit with your application if what you want to do may have an effect on: a listed building, historic/designated landscape (such as an Area of Outstanding Natural Beauty), historic park or garden, scheduled monument (such as Offa's Dyke), World Heritage Site or conservation area. The statement is produced as a result of a heritage impact assessment process which looks at what level of impact a development might have and is particularly concerned with any harm that may be caused to heritage.

In the case of large developments, such as new buildings, or renovation works you will need to produce a detailed document, ideally with the help of a qualified professional who will be able to provide the level of detail required.

In the case of smaller projects, for example changes to your own home, you still need to undertake a similar process, but not necessarily generate as detailed a document. Lots of small changes over time can have a very big impact on a building or site, so it is important that they are fully considered. If you have gone through a pre-application process you may feel that much of this information has already been discussed with the conservation officer, however applications which affect heritage are often referred to Cadw who will not have been involved in these conversations. It is important that they, and other consultees, also understand how you have arrived at the proposals in your application. Your statement does not need to be very long, but it has to be clear in addressing these points:

1. Explain your objective and why changes are desirable or necessary – introduce your project and provide some context to your site or building. Including a map or illustration of the plan of the site is helpful.
2. Understanding the significance of your historic asset – give a little bit of information about the history of your building (you can probably get this from the listing description) and why it was listed. Detail its importance in terms of historic value (any links to notable people or events), evidential value (evidence on site that tells us about the building, for example the plan form of the house, or in situ machinery), aesthetic or architectural value, and communal value (what it means to people). If your proposals affect just one part of the building/site explain what contribution that part makes to the wider significance of the building. Illustrating this section with current and historic photos or images is really helpful. If you have a plan of your building or site it could be helpful to include an annotated version which shows the changes to the building over time, or highlights areas which are more or less important to the overall significance of the building.
3. Identifying your proposed changes – make it clear what you intend to do, including the size and style of the intervention, reference drawings in your application or include images of the proposals if that helps to explain it. You could mark up existing photos with areas where you would like to put in new openings for example.
4. Assessing the impact of your proposals – your proposals are likely to have some impact on the site/building. This could be positive, neutral or negative. Be honest if there is some negative impact, for example loss of original material, or a change in historic plan form. Highlight any positive impacts, such as revealing hidden details, or removing unsightly later additions. Tell us about any mitigations that you have planned, such as using in keeping materials or decorative finishes to minimise the overall impact.

5. Set out the reasoning behind your preferred option in light of the heritage impact assessment process - why have you arrived at this proposal, did you consider any alternative approaches, if not, why not. You could look to include some examples of similar work in other places.

This advice is taken from Cadw's detailed guidance on heritage impact assessment
<https://cadw.gov.wales/advice-support/placemaking/heritage-impact-assessment/heritage-impact-assessment>

Notes from conservation officer

Thank you for this detail. Your proposed approach to the cellar work would definitely be acceptable. All the items apart from the restoration of the existing drain will need to come through on a listed building consent application however. This is due to the repairs using new materials (concrete lintels etc), the extent of splice repairs and the creation of a new, albeit small, opening for the vent. I am likely to support the work if you are able to provide me with suitable detail as part of the application. It would be useful to have a plan of the cellar joists, showing likely extent of removal of rotten material and an example detail drawing of the new supporting hanger and timber.

We'll need to see an elevation drawing with the outlet to the extract. If you can give any manufacturers information of what the vent will look like that would be helpful.

You will need a short heritage impact statement (I believe I have sent guidance on this before) but I do not see the work as controversial in any way.

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I would encourage you to come in for the lintels, joist repair and the ventilation as one, and do the removal of the fireplace separately. They read as two nicely contained packages. The benefit of include the small opening for the vent as part of the application is because it is easily justified as helping to rectify part of the cause of increased moisture that has caused the decay over time.

The plan you included, alongside some photos of the condition and the cross-section/plan showing what the bracket will look like (these could be included in your Heritage Impact Statement) would be sufficient. I would encourage you to get an application in at your earliest convenience. I will be going on maternity leave towards the end of September and, although I will leave notes on ongoing cases such as this, I am keen to get things dealt with where I know the history before I head off.

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If you can submit online but let me know when it has been submitted, I will ask our validation team to keep an eye out for it coming through. We do say that the standard turn around for listed building consent is 12 weeks, due to it going to Cadw following our determination process, but if consultees respond promptly it can get through a bit quicker.

Notes from Phil

[0:06 pm, 18/07/2022] T: Hi Tania, Tori said you wanted to see what we submitted for fireplace application. All the documents are on this link. It also shows consultations responses and case officers report. Hopefully you will get away without it by just asking the conservation officer like you did with the boiler etc. I only really did it because I wanted to have get in with conservation officer, who was not speaking to me about the barn, but then they left and the new one was more open to discussion although not us taking it down. Also as a template and to start based drawings and docs for other apps we want to put in next.
<http://pa.powys.gov.uk/online-applications/applicationDetails.do?activeTab=documents&keyVal=R29APJMPKYU00>

[0:06 pm, 18/07/2022] T: Let me know when you start happy to help review the text or similar. Keep it very simple. Introduce what you want to do and why. Briefly review what is the harm vs benefit to the listed building. Talk about retention of original fabric and siting new joists or structure alongside to support them. Have a Google of SABs guidance notes for repair work if needed. Talk about removing weight and non original feature. Add a few pics. 1 or 2 pages at most. Then give more info if they ask for it.

[0:06 pm, 18/07/2022] T: Yeah but u don't need the design and access statement bit. Not sure why I put it in. My top tip is full in the online Listed building consent application form first as it tells you the minimum application requirements.

[0:06 pm, 18/07/2022] T: You can look up other listed building consent applications on the local authorities website. Might be worth reading through a few but keep in mind some get very complex and OTT. Don't forget local authorities are overworked and may not even read it. You have a good relationship with the conservation officer so your half way there before you start. I'd keep it very short and simple. They will probably thank you for it. If not they will ask for more detail not just refuse it. That's quite rare. When your back let me know what you want to do and perhaps I can put a few key points in. I've done a few simple heritage statements before for clients. I've read lots in the past by the pro's and a heritage consultant gave me a few pointers recently.

